



Amended Claims

1-10 (canceled)

11. (previously amended) A computer-readable storing device storing a computer program for showing music score, said program using:

first data memory area, which holds base data to be transformed into images of music score of a music piece, and

second data memory area, which holds consecutive duration time of every beats along said music piece,

and said program including:

first instruction group for advancing internal music time, which expresses position in the music piece and is indicated by pair of measure number and beat number or its modified form, by reading out said consecutive duration time from the second data memory area and measuring the duration time one by one,

second instruction group for setting up partition of display space and generating image segment for each partition of each page using data in the first data memory area,

third instruction group for replacing displaying image segment at individual partition with new image segment assigned to the same partition in the following page, when said internal music time reaches individual music time value assigned for the new image segment,

and fourth instruction group for correcting difference between internal music time and actual performing music time by using timing input derived from performance.

12. (previously amended) The computer-readable storing device storing a computer program for showing music score claimed in claim 11, wherein the second instruction group including instructions for:

deciding said music time value for a new image segment, so that the partition assigned to the image segment, which includes note or rest corresponding to said music time, is at least one partition away in both directions from the partition assigned to the new image segment.

13. (previously amended) The computer-readable storing device storing a computer program for showing music score claimed in claim 12, wherein the second instruction group further including instructions for:

deciding said music time value for a new image segment, so that the partition assigned to the image segment, which includes note or rest corresponding to said music time, is

located outside of the center portion of display, then no replacement occurs all over the page while performing point is in this center portion.

14. (previously amended) The computer-readable storing device storing a computer program for showing music score claimed in claim 11, wherein the fourth instruction group further including instructions for:

accepting multi level timing input, and correction lower reliability level input by higher reliability level input.

15. (previously amended) The computer-readable storing device storing a computer program for showing music score claimed in claim 11, said program further including:

fifth instruction group for calculating ratio of physical time period from previous correction to current correction against physical time period from previous correction to physical time of internal music time of corrected point, and then modifying duration times thereafter in the second data memory by multiplied by the ratio, when correction happened.

16. (previously amended) The computer-readable storing device storing a computer program for showing music score claimed in claim 11, said program further including:

sixth instruction group for recording and storing modified duration times, which reflect the correction by the fourth instruction group, so that the program can use said recorded and stored data as data of the second data memory area at next playing time.

17. (previously amended) The computer-readable storing device storing a computer program for showing music score claimed in claim 16, wherein the sixth instruction group including instructions for:

allowing user to select options of (A) recording by overwrite in the second data memory area, (B) recording to other memory area, and (C) non-recording.

18. (previously amended) The computer-readable storing device storing a computer program for showing music score claimed in claim 11, which is used at master apparatus and said program further including:

seventh instruction group for delivering said internal music time to slave apparatuses.

19. (previously amended) The computer-readable storing device storing a computer program for showing music score claimed in claim 11, said program further including:

eighth instruction group for transforming in both directions between music time and page and position in display,

ninth instruction group for getting music time from the position by instructions of eighth group, when a user points on said position in displayed music score, and transmitting the music time to other apparatuses,

and tenth instruction group for obtaining page and position in display from the music time by instructions of eighth group, when receiving music time sent from the apparatus user pointed, and displaying the music score at obtained page and displaying a pointer at the obtained position in displayed music score.

20. (previously amended) The computer-readable storing device storing a computer program for showing music score claimed in claim 11,

wherein base data held in the first data memory area includes adjusting positions data, at which position special mark are displayed along the staff, said data is expressed by music time or able to be transformed to music time,

also, the fourth instruction group including instructions for:

detecting signal from human operating timing input device telling the playing position comes to the adjusting position, and on detection, finding one adjusting position nearest and within allowance range from the current internal music time out of the first data memory area, and correct internal music time to music time associated to the adjusting position found.

21. (previously amended) The computer-readable storing device storing a computer program for showing music score claimed in claim 11, said program further including:

eleventh instruction group for displaying and updating remaining number of measure until end of consecutive rest measure while internal music time is in said consecutive rest measures.

22. (previously amended) The computer-readable storing device storing a computer program for showing music score at a slave apparatus, said program using:

score data memory area, which holds base data to be transformed into images of music score of a music piece,

and said program including instructions of:

first group for receiving real time internal music time from a master apparatus, said music time expresses position in the music piece, and is indicated by pair of measure number and beat number or equivalent to the pair,

second group for setting up partition of display space and generating image segment for each partition of each page using data in the score data memory area,

third group for replacing displaying image segment at individual partition with new image segment assigned to the same partition in the following page, when said internal music time reaches individual music time value preset for the new image segment.

23. (previously amended) An apparatus for showing music score comprising of:

first data memory for holding base data to be transformed into images of music score of a music piece,

second data memory for holding consecutive duration time of every beats along said music piece,

an advancing means for advancing internal music time, which expresses position in the music piece and is indicated by pair of measure number and beat number or its modified form, by reading out said consecutive duration time from the second data memory area and measuring the duration time one by one,

a display setting means for setting up partition of display space and generating image segment for each partition of each page using data in the first data memory area,

an image replacing means for replacing displaying image segment at individual partition with new image segment assigned to the same partition in the following page, when

said internal music time reaches individual music time value preset for the new image segment,

and a time correcting means for correcting difference between internal music time and actual performing music time by using timing input derived from performance.

24. (previously amended) Computer readable media including duration time data in the second data memory area corresponding to a music piece, said duration time data is made by or made and duplicated later by the computer program claimed in claim 16.

25. (canceled)

26. (new) Method for music display and computer readable media for the method,

Contents of said media being prepared for a music work or a music composition, comprising music notation data, data of tempo or duration time of beats along whole said music work, and data of timing adjusting points expressed with music time comprising bar number, beat number and sub-beat timing number,

Said method being executed co-operatively by a music display system with timing input device and a musician, and the method comprising following steps:

Step 1: The media is set to the music display system, and the music display system loads the data on the media,

Step 2: The music display system display a part of said music notation and one or plural special marks at said timing adjusting points, that is, horizontally relative position to notes corresponding to music time of each adjusting point and vertically up or down side of staff,

Step 3: The musician performs along displayed music notes, and the music display system starts or continues to keep updating an internal music time for following up a performing music time of the musician, using said tempo data or said duration time of beats,

Step 4: The Musician recognizes each of said special marks, and inputs timing from said timing input device at exact timing of music time the mark placed at,

Step 5: The music display system adjusts the internal music time by replacing it by music time of the special mark, that is, the adjusting point, and optionally adjusts said tempo or said duration time of beats,

Step 6: The music display system update the display contents when the internal music time reaches predetermined point in one of ways: turning page; scrolling up; or part-by-part rolling down, new page or portion may include special mark as described in Step 2.